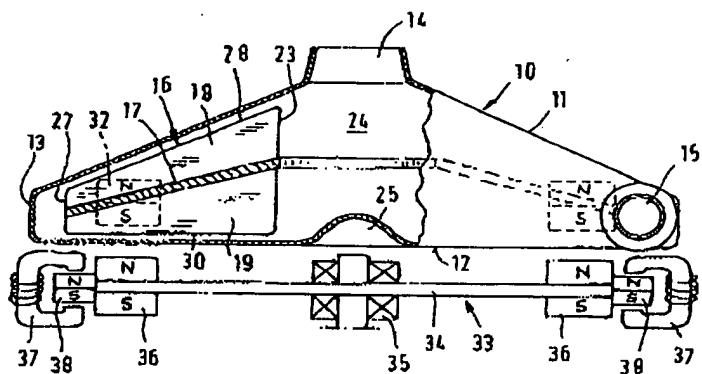


**PCT**WELTOORGANISATION FÜR GEISTIGES EIGENTUM  
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(54) Title: **BLOOD PUMP WITHOUT BEARING**(54) Bezeichnung: **LAGERLOSE BLUTPUMPE**

## (57) Abstract

Disclosed is a blood pump having a pump housing (10) in which an impeller (16) is arranged without housing. An external magnetic drive device (33) turns the impeller (16) via a magnetic coupling (32, 36). The lower side (30) of the wings (19) of the impeller is configured as a support surface (30) which slopes at the following end. A hydrodynamic supporting effect is thus obtained during rotation. Said effect raises the impeller (17) from the bottom surface of the pump housing (10). As the pump housing does not comprise bearings and seals, the thrombosis risk and the danger of penetration of foreign bodies into the blood by attrition is reduced.

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21 September 2000

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Facsimile No. 0011-1-909-781-4507

Attention: Michael H. Trenholm

Dear Michael

**Re: Application No. 09/281,608 filed 30 March 1999  
Entitled: A Rotary Pump with Hydrodynamically Suspended Impeller  
Your Ref. DUMMER4.001APC  
Our Ref. 982011**

We refer to our recent discussions in relation to the above case, recently allowed.

We are currently obtaining and will forward to you as soon as we receive it a Certified copy of the original priority document for this case, which we understand is required.

In relation to the formal drawings we attach with the e-mail copy of this letter in PDF format copies of the formal drawings. Could you please advise whether these drawings will overcome the formalities objections before the US PTO.

In relation to the Information Disclosure Statement we understand you are yet to confirm with the Examiner whether the additional Information Disclosure Statement will be incorporated and acknowledged in the present case.

One further issue has now arisen in relation to information disclosure and that concerns recently discovered International Patent Application PCT/EP99/08835 to

Knobbe, Martens, Olson &amp; Bear

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21 September 2000

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Impella Cardiotechnik AG. We attach a copy of its Abstract page from which you will see that it has an earliest priority date later than that of our client's application. We assume, because of this, that there is no need to formally disclose the existence of this specification to the US Patent Office, but we would be grateful for your confirmation that our understanding is correct.

We look forward to hearing from you.

Yours sincerely  
**WALLINGTON-DUMMER**



**Peter C. Dummer**